

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

MONDET Atty. Ref.: 2365-30; Confirmation No. 7199

Appl. No. 09/848,462 TC/A.U. 1616

Filed: May 4, 2001 Examiner: Lamm

For: COSMETIC USE OF AT LEAST ONE POLYORGANOSILOXANE AS A GELLING

AGENT AND COSMETIC COMPOSITION CONTAINING IT

May 11, 2004

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

## **RESPONSE UNDER RULE 116**

Responsive to the Office Action dated November 12, 2003, entry and consideration of the following remarks are requested.

Attached is a Notice of Appeal and Notice of Appeal Fee along with a three (3) month extension petition and three (3) month extension petition fee. The new due date for responding is July 11, 2004, by way of the attached Notice of Appeal.

The Examiner has indicated that claims 4-6 and 11-13 are objected to on page 1 of the Office Action dated November 12, 2003 (Paper No. 22), without further repeating the indication in paragraph 6 on page 4 of the Office Action dated May 7, 2003 (Paper No. 19), that claims 4-6 and 11-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the

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limitations of the base claim and the intervening claims. The indication that claims 4-6 and 11-13 contain allowable subject matter is acknowledged, with appreciation.

The Section 102 rejection of claims 1-3, 8-10, 15-21, 27-35 and 37 over Lee (U.S. Patent No. 5,919,437), is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following distinguishing comments.

The Examiner states on page 2, point 4 of the Office Action (Paper No. 22), that "the vinyl-terminated polydimethylsiloxanes of Lee et al are within the scope of the instant claims because they contain organosiloxy units (i.e. dimethylsiloxy units where R = methyl; b=0 and a=2) and end groups capable of forming hydrogen bonds (i.e. vinyl groups)."

Although polyorganosiloxanes having dimethylsiloxy units are disclosed by Lee et al, they do not contain end groups capable of forming hydrogen bonds, contrary to the Examiner's statement. In fact, a vinyl group cannot form a hydrogen bond with another vinyl group or any other type of groups (see the below definition of hydrogen bonds), and a vinyl group is not a group capable of forming hydrogen bonds as defined in claim 1 by the symbol R<sup>'</sup>, wherein R<sup>'</sup> is further defined by (a) and (b).

The applicant submits that a hydrogen bond is a chemical bond consisting of a hydrogen atom between two electronegative atoms (i.e., oxygen or nitrogen) with one side being a covalent bond and the other being an ionic bond. See also the definition of hydrogen bond pages 251-252 of "A Dictionary of Chemistry, 3<sup>rd</sup> Ed., John Daintith, Oxford University Press, 1996 (copy attached).

Illustrative examples of hydrogen bonds (shown below as dotted lines)

- between amino acids constituting DNA strand:

- between two carboxylic acid groups.

Consequently, the vinyl-terminated polydimethylsiloxanes of Lee et al are not within the scope of the instant claims and the Section 102 rejection of claims 1-3, 8-10, 15-21, 27-35 and 37 over Lee should be withdrawn.

Moreover, the applicant submits that the organopolysiloxane material of Lee et al is preferably a crosslinked polydimethylsiloxane formed as a reaction product of a vinyl-functionalized siloxane polymer and a hybride crosslinking agent (col. 6, lines 55-59). Examples of hybride crosslinking agent are hybride-containing silicones (col. 6, lines 64-67).

The reaction between the vinyl-functionalized siloxane polymer and the hybride crosslinking agent is a hydrosilation-named reaction (col. 7, line 21). This reaction is submitted to be a reaction well known by one of ordinary skill in chemistry. The reaction is between a vinyl group of the vinyl-functionalized polysiloxane and a silicon-bonded hydrogen as indicated below:

The applicant submits that the hydrosilation reaction is a common means of crosslinking such polysiloxane, leading to the formation of a <u>new covalent bond</u> between the vinyl-functionalized siloxane polymer and the hydride crosslinking agent.

The Section 103 rejection of claims 22-26 and 36 over Lee in view of Mellul (U.S. Patent No. 5,738,841), is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following distinguishing comments.

The deficiencies of Lee are noted above. The disclosure of additional ingredients in Mellul fails to cure the deficiencies of Lee noted above. The dependent claims 22-26 and 36 are patentable over Lee and Mellul and withdrawal of the Section 103 rejection of the same is requested.

In view of the above and attached, all the claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned if anything further is required in this regard.

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Respectfully submitted,

**NIXON & VANDERHYE P.C.** 

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